

# Appendix T



**BASELINE MONITORING REPORT**

**JANUARY 2005**

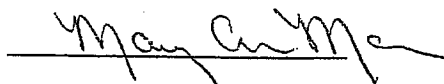
**CITY OF ESCONDIDO**

**Hale Avenue Resource Recovery Facility**

**NPDES Permit No. CAO108944**

**Order No. R9-2003-0394**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Mary Ann Mann  
Utilities Manager

2005 SEP 14 P 12:40  
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CITY OF ESCONDIDO  
WATER DEPARTMENT

## **BASELINE SELF-MONITORING REPORT REVIEW**

**To: CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340**

**DISCHARGER:** City of Escondido, Hale Avenue Resource Recovery Facility

**NPDES Permit No.** CAO108944

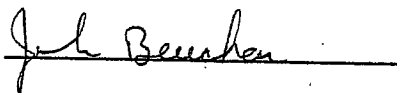
**ORDER/RESOLUTION No.** R9-2003-0394

**REPORT FOR:** JANUARY 2005

**REPORT DUE:** MARCH 1, 2005

**REPORT FREQUENCY:** Monthly

**SIGNED UNDER PENALTY OF PERJURY:**



Our Review of the Attached Self-Monitoring Report Reveals the Following Monitoring Violation(s):

Tertiary treated water was discharged to Escondido Creek from January 9 to 13, 2005. Total rainfall during the month of January was 10.5 inches. Total of the rainfall during the discharge to Escondido Creek was 8.1 inches. The discharge to the San Elijo Ocean Outfall order 99-72 from the HARRF and the San Elijo Water Pollution Control Facility exceeded the maximum capacity of the out fall. The mouth of San Elijo Lagoon was open at the time of discharge. This was verified by a site visit on Saturday January 8, 2005 and a phone call to SEJPA. Stream flows were recorded at the Country of San Diego's stream gauging station with an average flow of 2400 cfs during the time of discharge. Seven violations occurred in this period.

1. Treated wastewater turbidity exceeded an average turbidity of 2 NTU on January 9 through 13, 2005.
2. No sample collected on January 9, 2005 for Enterococci testing.
3. Sampling error occurred for Enterococci testing.
4. Nitrite (as nitrogen) exceeded daily maximum of 1 mg/l.
5. Acute toxicity test of 100% effluent resulted in less than 90 percent survival.
6. Chronic toxicity exceeded 1 TUc.
7. Stream flows recorded on January 13, 2005 were lower than 100 cfs.

The Following Remedial Action will be (has been) Taken to Correct the Monitoring Violation(s) Listed Above:

**1. Turbidity violations.**

During January 2005 the treatment plant experienced high influent flows caused by a continuing extreme wet weather event. Turbidities exceeded 2 NTU. A suspected cause was a change in the wastewater makeup due the increased amount of rainwater. Currently the filter aid being used is a poly aluminum chloride (JenChem) product. This product works well within a specific pH range. We suspect that even a slight increase or decrease in pH may change the way the filter aid reacts. What we were experiencing was either a coagulation of the floc post filter or shearing of floc in the filters, causing an increase in turbidity. We are researching other filter aid products which would work more efficiently during these events.

**2. No sample collected for Enterococci.**

This was a first time that Order R9-2003-0394 has been implemented since issue. Discharge to Escondido Creek began at 10:00 PM. Enterococci testing are not part of our normal testing regiment and was missed by staff. Enterococci testing began the next day.

**3. Sample error for Enterococci.**

Staff did not sufficiently flush sample line before taking first sample for Enterococci. The test results indicated sample contamination. Staff have been trained in proper sampling procedure.

**4. Nitrite violation.**

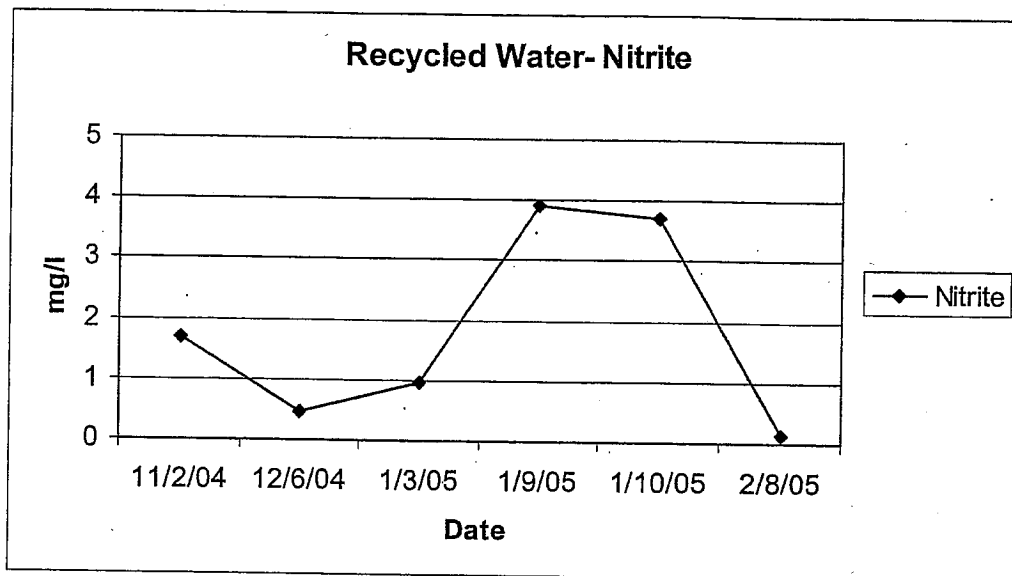
HARRF experienced high flows from the rain. High levels of nitrite were due to reduced detention time in the aeration basins. Nitrite to Nitrate in nitrification process was not complete.

**5 & 6 Acute Toxicity and Chronic toxicity violation.**

Indications of toxicity is caused by high levels of Nitrite. As noted in the graph below the Nitrite levels were higher during the months prior to and after the rain. Rain events and high flows are represented by the data points on the 9<sup>th</sup> and 10<sup>th</sup> of January 2005.

Acute & Chronic Testing of Receiving Water samples passed all test acceptability criteria and showed no impact to the Escondido Creek.

Acute Toxicity testing (Fathead Minnow) of Secondary Effluent on January 4, 2005 95% survival in 100% secondary effluent concentration that equals to 0.41 TUa.



#### 7. Stream flows violation.

It should be noted that the flow data for the HARRF is from 8:00 a.m. to 8:00 a.m.. During the last day of pumping the recorded flow by the County of San Diego dropped below 100 cfs. Plant staff failed to check the flows on swing and graveyard shifts during that time period. We are currently working on a wet weather Standard Operating Procedure which will cover the time interval to check the gauging station at Harmony Grove for creek flow. When the document is complete it will be forwarded to the Regional Board.

Rand Allen from the County of San Diego reports that "The low flow values (below 100 cfs) are suspect because there is at least a foot of standing water in the channel at very low flow. Our rating curve was built on the assumption that at zero flow, the concrete channel was fully exposed."

# INTERMITTENT WET WEATHER DISCHARGE MONITORING REPORT

DISCHARGER: City of Escondido, Hale Avenue Resource Recovery Facility  
 NPDES Permit No. CAO108944 ORDER/RESOLUTION No. R9-2003-0394  
 REPORT FOR: January 2005 Report Due: March 1, 2005  
 REPORT DUE: February 1, 2005

SIGNED UNDER PENALTY OF PERJURY: Van Vliet

Date	Flow	Turbidity	pH
Units	MGD	NTU	
Reqt.		Effluent Aveage	Effluent Grab
1/1/2005			
2			
3			
4			
5			
6			
7			
8			
9	0.3	3.0	7.8
10	4.0	6.3	7.8
11	7.5	7.1	7.7
12	2.7	5.0	7.7
13	3.1	2.9	7.8
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
Average	3.5	4.9	7.8
Maximum	7.5	7.1	7.8
Minimum	0.3	2.9	7.7

# INTERMITTENT WET WEATHER DISCHARGE MONITORING REPORT

DISCHARGER: City of Escondido, Hale Avenue Resource Recovery Facility

NPDES Permit No. 0108944

ORDER/RESOLUTION No. R9-2003-0394

REPORT FOR: January 2005

REPORT DUE: March 1, 2005

SAMPLE ANALYZED BY Lab Staff & APCL

SIGNED UNDER PENALTY OF PERJURY:

*Van Ciphert*

## Effluent Limit for Basin Plan Constituents

Title 22 CCR Section 64431, Table 64431-A, Inorganic Chemicals

Constituent/ Property	Units	Daily Maximum	Method EPA	ML	MDL	Results
						Daily Maximum
Sample Date						1/9/05
Aluminum	ug/L	1000	200.7	100	23	823
Antimony	ug/L	6	200.7	10	3.4	6 J
Arsenic	ug/L	50	200.7	5	1.2	2 J
Asbestos	MFL	7	100.1/2	4.93		< 5 ND
Barium	ug/L	1000	200.7	10	0.29	50.9
Beryllium	ug/L	4	200.7	2	0.05	< 2 ND
Cadmium	ug/L	5	200.7	2	0.24	< 2 ND
Chromium	ug/L	50	200.7	5	2.1	< 5 ND
Cyanide	mg/L	0.2	335.2	0.05	0.016	< 0.05 ND
Fluoride	mg/L	2	300.0	0.05	0.005	0.8
Mercury	ug/L	2	245.1	0.5	0.025	1
Nickel	ug/L	100	200.7	5	2	3.8 J
Nitrate (as NO3)	mg/L	45	300.0	0.044	0.031	12
Nitrate + Nitrite (sum as nitrogen)	mg/L	10	-	0.03	0.014	6
Nitrite (as nitrogen)	mg/L	1	354.1	0.02	0.0066	4
Selenium	ug/L	50	200.7	10	2.6	3 J
Thallium	ug/L	2	200.7	10	0.81	2 J

### Notes:

J: Reported between PQL (or ML) and MDL

ND: None Detected

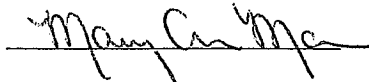
**INTERMITTENT WET WEATHER DISCHARGE  
To  
ESCONDIDO CREEK MONITORING REPORT  
FEBRUARY 2005  
CITY OF ESCONDIDO**

**Hale Avenue Resource Recovery Facility**

**NPDES Permit No. CAO108944**

**Order No. R9-2003-0394**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

A handwritten signature in cursive script, appearing to read "Mary Ann Mann", written over a horizontal line.

Mary Ann Mann  
Utilities Manager

## **INTERMITTENT WET WEATHER MONITORING REPORT REVIEW**

**To: CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340**

**DISCHARGER: City of Escondido, Hale Avenue Resource Recovery Facility**

**NPDES Permit No. CAO108944**

**ORDER/RESOLUTION No. R9-2003-0394**

**REPORT FOR: FEBRUARY 2005**

**REPORT DUE: APRIL 1, 2005**

**REPORT FREQUENCY: Monthly**

**SIGNED UNDER PENALTY OF PERJURY:**



### **Our Review of the Attached Self-Monitoring Report Reveals the Following Monitoring Violation(s):**

Tertiary treated water was discharged to Escondido Creek from February 22 to 25, 2005. Total rainfall during the month of February was 9.3 inches. The discharge to the San Elijo Ocean Outfall order 99-72 from the HARRF and the San Elijo Water Pollution Control Facility exceeded the maximum capacity of the out fall. The mouth of San Elijo Lagoon was open at the time of discharge. Stream flows were recorded at the Country of San Diego's stream gauging station with an average flow of 890 cubic feet per second during the time of discharge. The violations recorded during February discharge are summarized

1. Treated wastewater turbidity exceeded an average turbidity of 2 NTU on February 22 through 25, 2005.
2. Nitrate +Nitrite (as nitrogen) exceeded daily maximum of 10 mg/l.
3. Acute toxicity test of 100% effluent resulted in less than 90 percent survival.
4. Chronic toxicity exceeded 1 TUc.

**The Following Remedial Action will be (has been) Taken to Correct the Monitoring Violation(s) Listed Above:**

**1. Turbidity violations.**

During February 2005 the treatment plant experienced high influent flows caused by a continuing extreme wet weather event. Turbidities exceeded 2 NTU. A suspected cause was a change in the wastewater makeup due the increased amount of rainwater. Currently the filter aid being used is a poly aluminum chloride (JenChem) product. This product works well within a specific pH range. We suspect that even a slight increase or decrease in pH may change the way the filter aid reacts. What we were experiencing was either a coagulation of the floc post filter or shearing of floc in the filters, causing an increase in turbidity. We are researching other filter aid products which would work more efficiently during these events.

**2. Nitrate + Nitrite violation.**

HARRF experienced high incoming flows from the recent rainfall. High levels of nitrate + nitrite were cause by runoff containing high nutrient levels of Infiltration and Intrusion into the collection system.

**3&4 Acute Toxicity and Chronic toxicity violation.**

Indication of toxicity is caused by high levels of nitrate+nitrite. Acute & Chronic Testing of Receiving Water Samples from station 912 passed all test acceptability criteria and showed no impact to the Escondido Creek.

## **Daily Monitoring During the Discharge**

**INTERMITTENT WET WEATHER DISCHARGE MONITORING REPORT**

**DISCHARGER:** City of Escondido, Hale Avenue Resource Recovery Facility

**NPDES Permit No.** CAO108944

**ORDER/RESOLUTION No.** R9-2003-0394

**SAMPLE :** Tertiary Treated Wastewater

**SAMPLE ANALYZED BY:** Continuous recording flow meter and turbidity meter.

**REPORT FOR:** February 2005

**Report Due:** April 1, 2005

**SIGNED UNDER PENALTY OF PERJURY:** Vase Lipton

Date	Flow	Turbidity	pH
Units	MGD	NTU	
Reqt.		Effluent Average	Effluent Grab
2/22/2005	4.36	7.9	7.6
2/23/2005	6.25	7.7	7.6
2/24/2005	4.89	6.0	7.7
2/25/2005	1.19	6.5	7.9
Average	4.17	7.0	7.7
Maximum	6.25	7.9	7.9
Minimum	1.19	6.0	7.6

pH : With in limits of 6.0 and 9.0 at all time

# INTERMITTENT WET WEATHER DISCHARGE MONITORING REPORT

DISCHARGER: City of Escondido, Hale Avenue Resource Recovery Facility

NPDES Permit No. 0108944

ORDER/RESOLUTION No. R9-2003-0394

REPORT FOR: January 2005

REPORT DUE: March 1, 2005

SAMPLE ANALYZED BY Lab Staff & CRG Marine Laboratories Inc.

SIGNED UNDER PENALTY OF PERJURY: Van Ciptegh

## California Toxics Rule (CTR) Effluent Limitations

Constituent/ Property	Units	Monthly Average	Daily Maximum	Method EPA	ML	MDL	Results	
							Monthly Average	Daily Maximum
Sample Date							2/22/2005	
Flow Rate	MGD						4.57	4.57
Mercury	ug/L	0.05	0.11	200.8	0.1	0.025	< 0.1	ND
	lbs/day	0.0038	0.0083				< 3.85	< 3.85

## Effluent Limit for Basin Plan Constituents

Title 22 CCR Section 64431, Table 64431-A, Inorganic Chemicals

Constituent/ Property	Units	Monthly Average	Daily Maximum	Method EPA	ML	MDL	Results
							Daily Maximum
Sample Date							2/22/05
Nitrate + Nitrite (sum as nitrogen)	mg/L	-	10	300.0	0.05	0.008	12.8
Nitrite (as nitrogen)	mg/L	-	1	300.0	0.05	0.0060	0.460